IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S):   YELLIN, Daniel et al.   EXAMINER: Not yet assigned

SERIAL NO.:   Not yet assigned   GROUP ART UNIT: Not yet assigned

FILED: Herewith   Attorney Docket No.: P-2654-US1

FOR.:   A CHANNEL ESTIMATOR

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, this Information Disclosure Statement includes:

1. ☐ Documents including patents, publications, and other information listed on the attached Form PTO-1449 for consideration by the Examiner;

2. ☒ Form PTO-1449 which lists documents including patents, publications and other information for consideration by the Examiner but in accordance with 37 C.F.R. 1.98(d) does not include those documents which have been previously cited or submitted to the Patent Office in the following prior application U.S. Serial No. 09/438,475, filed November 12, 1999 which is properly identified and relied on.

3. ☐ Other information for the Examiner's consideration which was cited in a communication from a foreign patent office in a counterpart foreign application.

The information herein cited is only in fulfillment of Applicant(s) duty of candor in disclosing all information brought to Applicant(s) attention. This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art". If it should be determined that any of the listed documents do not constitute "prior art" under United States law, Applicant(s) reserve the

APPLICANTS: TELLIN, Daniel et al.
SERIAL NO.: Not yet assigned
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right to present to the office the relevant facts and law regarding the appropriate status of such documents.

Applicant(s) further reserve(s) the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

In accordance with MPEP Sections 609 and 707.05(b), it is requested that each and every document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application and is evidence that the Examiner has considered the document.

This Information Disclosure Statement is being filed:

I) ☒ Within three (3) months of filing the subject Application or entry of the subject Application into the national stage or before mailing of the first Office Action on the merits whichever event occurs last pursuant to of 37 C.F.R §1.97 (b); or

II) ☐ After the period specified in (I) but before the mailing date of either a final Official Action under 37 C.F.R §1.113 or a notice of allowance under 37 C.F.R §1.311 whichever occurs first;

    1. ☐ The undersigned hereby states that each item of information listed on the Form PTO-1449 was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement; or

    2. ☐ the undersigned hereby authorizes the Patent Office to charge the fee in the amount of $180.00 under 37 C.F.R §1.17 (p) to Deposit Account 05-0649.

III) ☐ After the period in (I) and (II) but before the payment of the issue fee,
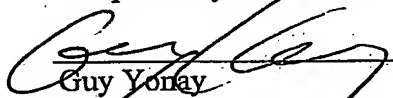
    1. The Undersigned hereby states:

        a) ☐ that each item of information cited on the form PTO-1449 was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than three (3) months prior to the filing of this Information Disclosure Statement; or

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b)   ☐   that no items of information contained in Form PTO-1449 was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement; and

2.   ☐   The Undersigned hereby authorizes the Patent Office to charge the Petition fee in the Amount of $180.00 under 37 C.F.R §1.17 (p) to Deposit Account 05-0649.

Except for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 05-0649.

Respectfully submitted,

Guy Yonay
Attorney for Applicant(s)
Registration No. 52,388

Dated: August 4, 2003

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Substitute for form 1449A/PTO	**Complete if Known**	
	Application Number	N t yet known
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Filing Date	Herewith
	First Named Inventor	YELLIN, Daniel
	Group Art Unit	N t yet known
(use as many sheets as necessary)	Examiner Name	Not yet known
Sheet 1 of 3	Attorney Docket Number	P-2654-US1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code[2] *(if known)*			
	AA	6,442,218		Nakamura et al.	08-2002	
	AB	6,377,607		Ling et al.	04-2002	
	AC	5,887,035		Molnar, Karl J.	03-1999	
	AD	5,867,538		Liu, Qingli	02-1999	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		Office[3]	Number[4]	Kind Code[5] *(if known)*				
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Unique citation designation number. [2] See attached Kinds of U.S. Patent Documents. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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Substitut for form 1449B/PTO **INFORMATION DISCLOSURE STATEMENT BY APPLICANT** *(use as many sheets as necessary)*	**Complete if Known**	
	Application Number	Not yet known
	Filing Date	Herewith
	First Named Inventor	YELLIN, Daniel
	Group Art Unit	Not yet known
	Examiner Name	Not yet known

Sheet	2	of	3	Attorney Docket Number	P-2654-US1

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	AE	Schramm et al., "Pilot Symbol Assisted BPSK on Rayleigh Fading Channels with Diversity: Performance Analysis and Parameter Optimization", IEEE Transactions on Communications, Vol. 46. No. 12, December 1998, pp.1560-1563	☐
	AF	Siala et al., "Maximum A Posteriori Multipath Fading Channel Estimation for CDMA Systems", Proceedings of Vehicular Technology Conference, Houston, Texas, May, 1999	☐
	AG	3GPP RAN 25.214, v1.1.1,(1999-09) Physical Layer Procedures	☐
	AH	Turkboylari et al., "An Efficient Algorithm for Estimating the Signal-to-Interference Ration in TDMA Cellular Systems", IEEE Transactions on Communications, Vol.46, No.6, June 1998, pp.728-731	☐
	AI	Press et al., Numerical Recipes in C: The Art of Scientific Computing, 2nd Edition, Cambridge University Press, 1992	☐
	AJ	Andoh et al., "Channel estimation Using Time Multiplexed Pilot Symbols for Coherent Rake Combining for DS-CDMA Mobile Radio", Proceedings of the IEEE Vehicular Technology Conference, 1997, pp. 954-958	☐

Examiner Signature		Date Considered	

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[1] Unique citation designation number. [2] Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO	*Complete if Known*	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*	Application Number	Not yet known
	Filing Date	Herewith
	First Named Inventor	YELLIN, Daniel
	Group Art Unit	Not yet known
	Examiner Name	Not yet known
Sheet **3** of **3**	Attorney Docket Number	P-2654-US1

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Examiner initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (where appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	AK	Adachi et al., "Wideband Wireless Access Based on DS-CDMA", IEEE Transactions on Communications, pp. 1305-1316, July 1998	☐
	AL	Adachi et al., "Wideband DS-CDMA for Next-Generation Mobile Communications Systems", IEEE Communications Magazine, September 1998, pp.56-69	☐
	AM	3GPP RAN TS 25.215, v0.0.1 (1999-09) Physical Layer - Measurements	☐
			☐
			☐
			☐

Examiner Signature		Date Considered	

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